

***NATIONAL WEATHER SERVICE ALASKA REGION SUPPLEMENT 08-2003
APPLICABLE TO NWSI 10-922
NOVEMBER 18, 2005***

***Operations and Services
Hydrologic Services Program, NWSPD 10-9
Weather Forecast Office Hydrologic Products Specification, NWSI 10-922
ALASKA WEATHER FORECAST OFFICE HYDROLOGIC PRODUCTS***

NOTICE: This publication is available at: <http://www.nws.noaa.gov/directives/>.

OPR: W/AR2 (R. Radlein)

Certified by: W/AR2 (R. Radlein)

Type of Issuance: Routine

SUMMARY OF REVISIONS: This supplement supersedes NWS Alaska Region Supplement (ARS) 08-2003, Alaska Weather Forecast Office Hydrologic Products, dated October 15, 2003, applicable to National Weather Service Instruction (NWSI) 10-922. This supplement reflects the information in the Alaska Region Weather Service Office Concept of Operations. It also clarifies the conditions which allow a Flood Advisory to be issued rather a Flood Warning.

Section numbers in this supplement correspond to the section numbers in NWSI 10-922.

<u>Signed</u>	<u>11/4/05</u>
Laura K. Furgione	Date
Regional Director	

Alaska Region Weather Forecast Office Hydrologic Products

<u>Table of Contents:</u>	<u>Page</u>
1. Introduction.....	2
2. Organizational Responsibilities	2
2.3 Weather Forecast Offices (WFO)	2
2.4 Weather Service Offices (WSO).....	2
4. Hydrologic Warning and Forecast Products	3
4.1 Hydrologic Outlook (ESF).....	3
4.2 Flood Watch (FFA).....	3
4.3 Flash Flood Warning (FFW).....	3
4.4 Flash Flood Statement (FFS)	3
4.5 Flood Warning (FLW)	3
4.6 Flood Statements (FLS)	4
4.7 Hydrologic Statements (RVS)	4
4.8 Hydrologic Summary (RVA).....	4
4.9 Daily River and Lake Summary (RVD)	5
7. Hydrologic Data Products.....	5
7.1 Hydrologic Data Report 1 (RR1).....	5
7.2 Hydrologic Data Report 3 (RR3).....	5
7.3 Hydrologic Data Report 5 (RR5).....	5
7.4 Hydrologic Data Report 6 (RR6).....	5
7.5 Hydrologic Data Report 7 (RR7).....	5
16. Public Information Statement (PNS)	5

1. Introduction. Establishes guidelines for Alaska Region offices in generation of the hydrologic products for which the weather forecast office (WFO) is responsible, including a discussion of the factors to be considered when selecting which product to issue.

2. Organizational Responsibilities.

2.3 Weather Forecast Offices (WFO). While WFOs are responsible for the issuance of the products described in NWSI 10-922, ARS 07-2003, applicable to NWSI 10-921, discusses conditions under which authority may be granted to other offices to issue hydrologic products for the WFO.

2.4 Weather Service Offices (WSO). In coordination with the associated WFO, WSOs may recommend issuance of flash flood warnings.

4. Hydrologic Warning and Forecast Products.

4.1 Hydrologic Outlook (ESF). Hydrologic outlooks provide information on hydrometeorological conditions which could cause flooding or impact water supply. The Spring Breakup Outlook for Alaska, issued by the Alaska-Pacific River Forecast Center (APRFC), focuses on the spring flood potential from snow melt and ice jams. The Spring Breakup Outlook will be the most common hydrologic outlook issued in Alaska Region; it is normally issued from mid March through early May. WFOs should coordinate generation of a hydrologic outlook if flooding is expected beyond 36 hours. The APRFC forecast guidance and information about the confidence of the precipitation forecast should be included in the product issued.

4.2 Flood Watch (FFA). During spring breakup, flood watches may be issued in association with ice jams. While the mass news dissemination header product type will always be FLOOD WATCH, the headline of the product should delineate whether this is a flood watch or a flash flood watch.

4.3 Flash Flood Warning (FFW). Flash flooding is defined as life threatening flooding that occurs within 6 hours of the causative event. Flash flood warnings may be warranted when ice jams during the breakup or freeze up periods are expected to cause imminent flooding which endangers life or results in property damage. Flash flooding will not commonly occur in areas with broad floodplains or in extensive braided glacial streams. All flash flood warnings must be in the bullet format with the latitude-longitude coordinates of the warned area, using the World Meteorological Organization (WMO) header of the responsible WFO whether it is actually issued by the WFO or the APRFC.

4.4 Flash Flood Statement (FFS). A flash flood statement may be issued to supplement information on an existing flash flood warning or to cancel it. Flash flood statements will not be issued by the APRFC without coordination with the responsible WFO. The WFO should not cancel a warning initially issued by the APRFC without coordination. The FFS must include the latitude-longitude coordinates of the warned area.

4.5 Flood Warning (FLW). Flood warnings are issued when flooding is expected to occur or to last more than 6 hours after the causative event. Flood warnings may be issued for reaches along gaged streams, for ungaged streams and rivers within a specific geographic area, or for both. **When the causative event is widespread, serious consideration should be given to ensuring that likely flooding on both gaged and ungaged streams is covered.** Flash flood warnings for which the river remains above flood stage for an extended period will be updated with flood warnings and flood statements. Flood warnings can be issued when time to flood is 36 hours or more in the future and monitoring and prediction tools or APRFC guidance indicate flooding is likely.

A new flood warning will be issued for increases in the areal extent or duration of the flooding or in the categorical magnitude of the flooding. All flood warnings will contain information on when the next statement or warning will be provided. When flooding is widespread, flood warnings for all rivers in the WFO's area impacted by the event may be combined into a single

flood warning product. This may be presented as a segmented warning or within a single segment. A bullet format can also be used to highlight critical information.

4.6 Flood Statements (FLS). A flood statement may be issued to provide an update or supplemental information on an existing flood warning or to end or cancel it. It may be used to identify geographic areas in which small or ungaged streams may be expected to rise out of banks or to impact activities near the streams, without presenting substantial risk of loss of lives or property damage. It may also be used to provide information on elevated river or stream flows or ponding of water in populated areas when these events warrant public notification but are not threatening enough to warrant a warning. A flood statement could be issued when water is expected to cover road crossings slightly without resulting in actual road closures or presenting a significant hazard. A flood statement will identify when additional statements will be provided unless it informs users that it is the last statement for the given event.

Although the word “advisory” is not allowed in the MND Product Type Line, WFOs have the option to use the word “advisory” in FLS headlines. In Alaska, flood statements issued for minor flooding that does not present substantial risk to lives or property will use the FLS headlines “Flood Advisory for {location}” or “Small Stream Flood Advisory for {location}” where the location may include urban areas, small streams, low lying areas, or road crossings in the area named. More detailed information on the causative factors for and duration of the event can be included in the first few sentences of the statement. Thus, instead of a headline of Urban and Small Stream Flood Advisory, the WFO might issue a “Small Stream Flood Advisory near Anchor Point” or “Flood Advisory for Chena Hot Springs Road”.

If flooding is likely to exceed a defined flood stage or to cause property damage, necessitate evacuations, result in road closures, or place lives at risk, a flood warning (FLW) should be issued rather than a flood advisory or statement (FLS).

4.7 Hydrologic Statements (RVS). This product is used to provide hydrologic forecasts and related information to local users. The river ice statement, river statement, and river recreational forecast are examples of this product. A river statement could be issued to cover events such as the recurring ponding of water when water tables rise in the Perkins Landing or Piledriver Slough area near Fairbanks, or rises caused by a jokulhlaup (glacier-dammed lake outburst) that are not expected to result in flooding or serious inconvenience. When a hydrologic statement includes information for more than one hydrologic service area (HSA), the APRFC will issue this product using its own WMO header.

4.8 Hydrologic Summary (RVA). This product is used to provide hydrologic observations and other information to the local users. Routine summary stage and forecast products will be issued under the WFO header. The statement for Northern and Western Alaska will use the product identifier of “RVAYKN” rather than “RVAAFG” since it includes some forecast points in the Anchorage HSA. A statewide breakup summary is issued during the period from mid April through June using the APRFC WMO header.

4.9 Daily River and Lake Summary (RVD). This product is used to provide hydrologic observations and other information to both local and National users using a standard hydrologic exchange format (SHEF).

7. Hydrologic Data Products.

7.1 Hydrologic Data Report 1 (RR1). This product should be used for collection and distribution of local observations such as the supplemental snow water equivalent observations made using the snow board kits. These data are distributed within the Region only.

7.2 Hydrologic Data Report 3 (RR3). This product should be used for collection and distribution of observations by cooperative observers or other daily supplemental sources. This could include observations entered through the WFO or APRFC web pages. This product can be generated automatically on AWIPS.

7.3 Hydrologic Data Report 5 (RR5). This product should be used to report hourly hydrometeorological data such as that collected from Handars, LARCs, and the Meteorburst system. This product can be generated automatically on AWIPS.

7.4 Hydrologic Data Report 6 (RR6). This product should be used when ASOS precipitation rates on an ASOS report exceed a threshold. This may include information provided by the WSOs. This product can be generated automatically on AWIPS.

7.5 Hydrologic Data Report 7 (RR7). This product should be used for hourly ASOS precipitation reports. This may include information provided by the WSOs. This product can be generated automatically on AWIPS.

16. Public Information Statement (PNS). While this product is not covered in NWSI 10-922, it may be used to provide information of interest about rivers or hydrologic events. It may be issued by WFOs, WSOs, or the APRFC to describe or discuss unusual or important hydrologic conditions not generally associated with flooding. These events may include bank erosion, potential for a jokhlaupt, thin ice making river travel unsafe, changes to flood stages, or other events that do not warrant the more traditional river products. The intention of these products is to provide information or to educate the public. This product will normally be coordinated with all of the offices that share an interest in the affected HSA.